

Abstract

The invention relates to a device for monitoring a conveyor (1), comprising:

- a conveyor belt (2) made of elastomer material, having a carrying side (3) for the goods to be conveyed, and a running side (4), whereby the conveyor belt has, in particular, an embedded strength support;
- an optoelectronic system (5) that optically detects the carrying side (3) and/or the running side (4), particularly the carrying side, in that it recognizes damage during operation, and if a critical state of the conveyor belt is reached, triggers an acoustical and/or optical alarm (11) and/or, in particular, brings about an automatic shut-down of the system;
- a process computer (6), which is coupled with the optoelectronic system (5), for the purpose of evaluating all of the data, whereby the process computer is connected with the alarm (11) and/or a drive control (12); as well as
- other system parts, namely contact drums (8), support rollers (9), support scaffolding, as well as any other components that might be necessary.

The device according to the invention is characterized in that the device is additionally equipped with at least one structure-borne noise sensor (10) that detects deviations from the reference frequency, whereby a process computer (6) that is connected with the structure-borne noise sensor evaluates the change in frequency, specifically with simultaneous balancing with the reports from the optoelectronic system (5), so that even in a case where the optoelectronic system itself does not report a critical state, an acoustical and/or optical alarm and/or in particular, an automatic shut-down of the conveyor is brought about, in that the process computer responsible for the structure-borne noise sensor is also connected with an alarm (11) and/or the drive control (12).

(Fig. 1)